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DERWENT-WEEK: 200271

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TITLE: Address-saving internet connecting method and apparatus using network address transformation function

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PATENT-FAMILY:

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APPLICATION-DATA:

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KR2001040075A	Div ex	1999KR-0041820	September 29, 1999
KR2001040075A	N/A	2000KR-0060245	October 13, 2000

INT-CL (IPC): H04L012/28

RELATED-ACC-NO: 2001-056505

ABSTRACTED-PUB-NO: KR2001040075A

BASIC-ABSTRACT:

NOVELTY - An address-saving Internet connecting method and apparatus using a network address transformation function are provided to save an IP address and designates one server by services with a single IP address in the situation short of the IP address by fixedly recording an IP address and a port number assigned internally in a network of a network of a network equipment desired to be continuously connected from outside the network according to a network address transformation table.

DETAILED DESCRIPTION - When an IP packet is received by an outside an address-saving Internet connecting unit(1), a destination port number of the IP packet is compared to a local network address transformation function port number of a network address transformation table, and if the port number exists at the network address transformation table, a receiving part port number is transformed by using the internal IP address recorded in the network address transformation table and the local network address transformation function port, the receiving part IP address is transformed, and then a check sum

is changed(2). If the receiving party port number of the IP packet does not exist at the network address transformation table, the IP packet is discarded, and then, the transformed IP packet reaches a host 1, a destination(3). When a response IP packet to the IP packet received by the host 1 comes inside of the address-saving Internet connecting unit(4), an origination port number of the packet and a port number of the network address transformation table are compared, and then if the origination source port number exists at the network address transformation table, the origination source port number is transformed by using the internal IP address recorded in the network address transformation table and the port, the origination source IP address is transformed, and the check sum is changed(5), and then the transformed IP packet reaches a host 2, a destination. If the origination source port number is not recorded in the network address transformation table, a source port of the IP packet to be transmitted and an internal IP address are recorded in the network address transformation table, the origination source port number is transformed by using the internal IP address recorded in the network address transformation table and the port, the origination source IP address is transformed, and the check sum is changed(5), and then the transformed IP packet reaches the host 2, the destination(6).
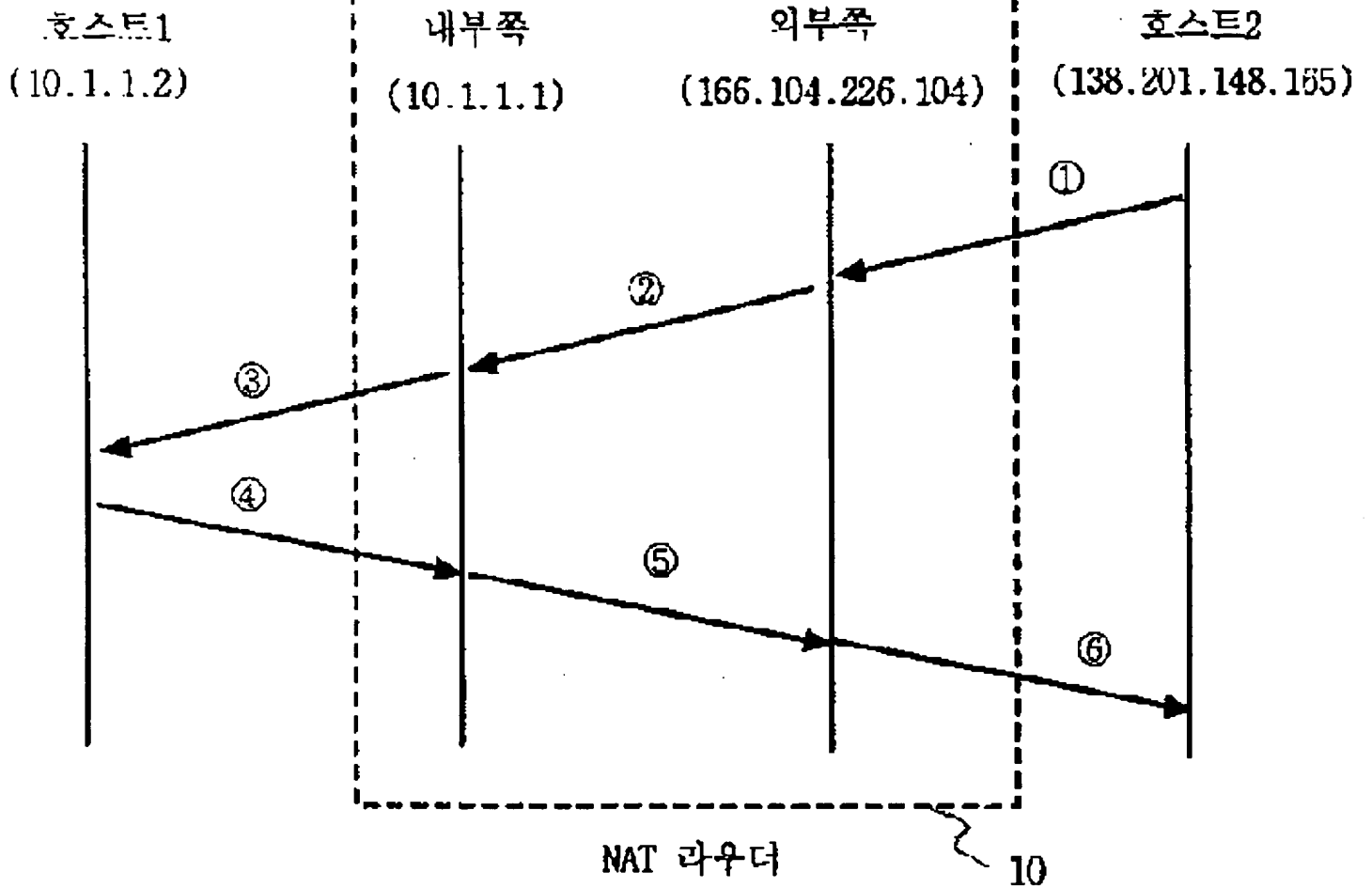
CHOSEN-DRAWING: Dwg.1/10

TITLE-TERMS: ADDRESS SAVE CONNECT METHOD APPARATUS NETWORK ADDRESS TRANSFORM FUNCTION

DERWENT-CLASS: W01

EPI-CODES: W01-A06;

호스트1
(10.1.1.2)

내부쪽
(10.1.1.1)

외부쪽
(166.104.226.104)

호스트2
(138.201.148.155)

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NAT 라우더

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확장된 NAT 기능의 흐름도